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Monthly Statistical Report

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OCTOBER 1988

SUMMARY

Substantial increases in deliveries of petroleum products in October, along with the continued decline in domestic production, combined to increase imports for the month to a recent-year record.

Total deliveries' growth rate jumped to 5.5 percent in October, after averaging less than 1 percent over the second and third quarters. October's large increase was the result of strong gains for gasoline, residual fuel oil, and the "other oils" category.

Gasoline deliveries, which generally had been weak in recent months, rose 4 percent in October. In fact, year-to-date deliveries of gasoline averaging more than 7.3 million B/D are now within less than 3 percent of the all-time high for a similar period established in 1978. October's residual fuel oil deliveries leaped nearly 30 percent in response to fuel switching and an apparent tip in the balance towards more domestic bunker purchases versus foreign sources. Residual fuel oil's increase accounted for a third of October's year-to-year gain in total deliveries. "Other oils" deliveries increased nearly 5 percent.

Though deliveries of kerosine jet fuel declined year to year, they would also have shown an increase of more than 5 percent if deliveries last October had not been well above the prevailing trend. Thus, the only major product category that showed some weakness in October was distillate fuel oil. Distillate deliveries for the month were nearly flat—in contrast with estimated consumption growth closer to the year-to-date increase of 3.6 percent.

Offshore production in the Gulf recovered from September's hurricane-related decline, but domestic crude oil output nevertheless fell 330 thousand B/D from last October. Since early 1986, domestic production has declined by more than 1.1 million B/D.

Product imports, reaching the highest October level since 1974, brought total imports to 7.6 million B/D—surpassing the recent year record set a year ago July. Reflecting gasoline deliveries' growth, imports of gasoline and components of over 540 thousand B/D exceeded the summer's already high levels while refinery production of this product rose over 4 percent from last October. Despite the month's high level of petroleum imports, strong deliveries resulted in a contraseasonal decline in total stocks of 11 million barrels.

PRODUCT SUPPLIED[1/]

Gasoline

YEAR-TO-DATE DELIVERIES CLOSE IN ON 1978 RECORD.

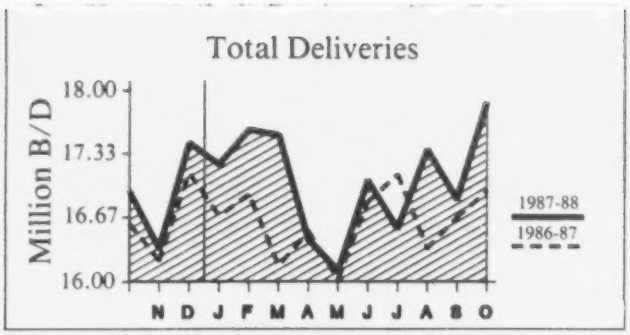
Experiencing one of the strongest increases since June, gasoline deliveries in October rose 4 percent over a year ago—contrasting with generally weaker results in recent previous months. Though the latter weakness has been in seeming contradiction with data on travel and other indicators of demand, October's jump has helped deliveries for the year to catch up with estimated consumption growth on the order of 2 percent.

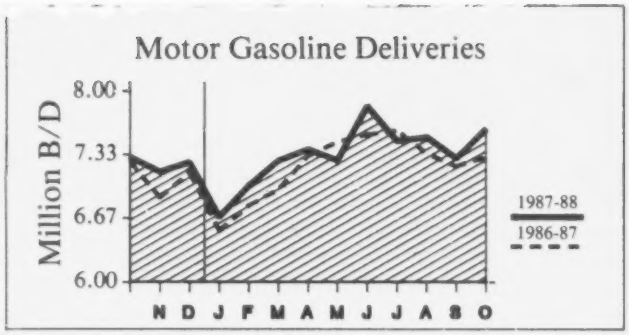
The month's strong increase in deliveries brings the year-to-date growth for gasoline to 1.7 percent. Even though this year's deliveries increase still falls short of last year's 2.4 percent rise, the more than 7.3 million B/D average for the first ten months of this year is the highest level since 1979 and less than 3 percent short of 1978's all-time record for the same period.

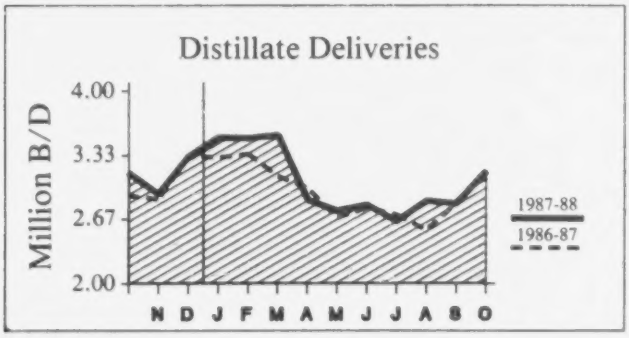
The fact that the economy has grown by nearly 30 percent in the past decade, while gasoline consumption has yet to surpass the level of a decade ago, is a measure of the degree to which the gasoline market has changed over the period. It is true that higher prices helped to dampen demand growth in the years following the 1978 demand peak. But even as prices receded in the 1980s, continued improvement in the fleet's average fuel efficiency has held demand growth to an average 2 percent per year, 1982 to 1987. This contrasts with an average rate nearly a point and a half higher during most of the 1970s—when the economy was actually growing less rapidly than it has more recently.

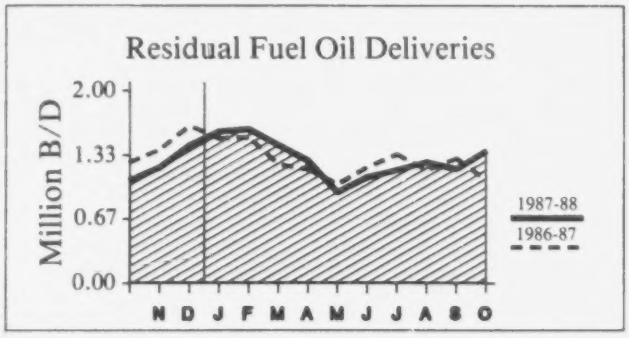
API ESTIMATES

	OCTOBER		YEAR-TO-DATE	
	Million B/D	Percent Change	Million B/D	Percent Change
Total domestic deliveries	17.9	5.5	17.1	2.7
Crude oil production[2/]	8.0	(3.9)	8.1	(2.5)
Total imports[3/]	7.6	8.7	7.0	7.0
Stocks (million bbl)[3/]	1,053	(2.0)	na	na









Distillates

DESPITE COLD WEATHER, DELIVERIES UP ONLY SLIGHTLY. October's distillate deliveries rose only slightly compared with last year. This is despite consumption growth which is estimated to be in line with the year-to-date deliveries increase of 3.6 percent, largely because of continued growth in transportation usage. Though passage of the tax "corrections" bill, which included changes for off-highway diesel excise tax collections, was delayed in House-Senate conferences in September, it has since been passed. However, the effective date has been moved to the first of next year, so that affected users still have an incentive to postpone less-needed purchases until that time.

Unseasonally cool weather in the eastern U.S. around mid-month raised October's heating degree day average to more than 30 percent colder than normal. However, last October had also been unusually cold, so that we estimate little net effect from weather in comparing last October's deliveries with this year's.

Residual Fuel Oil

YEAR-TO-YEAR RISE REACHES NEARLY 30 PERCENT. Deliveries of residual fuel oil are estimated to be 1,373 thousand B/D, representing an increase of 15.8 percent from September and an increase of 28.4 percent from a year ago. The estimate, an apparent reversal of several months' weakness during much of the year, represents a substantial recovery in deliveries of this product.

Almost all of the major consuming sectors are believed to have contributed to the substantial increase in deliveries. Several large industrial and utility customers, continuing a trend from the previous month, are believed to have accelerated their switch from natural gas to heavy fuel oil as a result of heavy fuel's favorable economics. In addition, the colder-than-average weather is also believed to have reinforced the upward spike in deliveries to utility customers.

Bunker fuel markets, which had also been weak for several months, are also reported to be showing some strength in most regions of the country, partly due to seasonal factors. Several contractors, who had previously been reluctant to purchase more than minimum contractual volumes, are now reported to be making significant spot purchases of bunker fuel as result of recent price declines. In fact, bunker fuel on the East Coast is becoming more competitive with other sources, enabling that region to recapture some of its recently lost market share from the Rotterdam market.

Kerosine Jet Fuel

STRENGTH A YEAR AGO CONVERTS GROWTH TO A DECLINE. Though deliveries of kerosine jet fuel have been slowing this year in line with air travel, October's 2.7 percent decline, on the surface, would appear to be an uncharacteristically weak showing. However, deliveries last October were roughly 100 thousand B/D above trend; compared with a more typical volume for last October, this October's deliveries would have been up by more than 5 percent.

This is not far out of line with air traffic increases. Though domestic passenger travel has shown only slow growth so far this year, international and cargo traffic increases have been strong enough to keep growth in miles flown running in the 3 to 4 percent range.

Other Oils

DELIVERIES RISE ALMOST 5 PERCENT. Deliveries of other oils are estimated at 4,459 thousand B/D, one of the highest levels of the past nine years. The month's deliveries represent an increase of 2.8 percent from September and 4.8 percent from October 1987. Almost all of the products in this category are believed to have contributed to the sizable increase in deliveries.

Petrochemical feedstocks are believed to have contributed the major share of the increase in the other oils category. Continuing a pattern of the past several months, olefin plants were continuing to run at close to full capacity in response to strong, export-led petrochemical demand. Several plants which were reported to be down in September due to the hurricanes, as well as maintenance problems, were back in production in October, contributing to the month-to-month increase. In particular, propane deliveries are believed to have increased due to both a continuing recovery in propane demand for petrochemical feedstock purposes as well as the colder-than-average weather. Ethane is maintaining its strength, but its continuing price rise has apparently resulted in increases in demand for ethane-propane mixtures, displacing some of the earlier strength in purity ethane. Deliveries of butanes as a petrochemical feedstock are also believed to have risen in anticipation of new vapor pressure requirements for gasoline that would increase butane availability for that purpose. Deliveries of the heavier feedstocks, gasoil and naphtha, are also reported to have increased during the month as a result of their price competitiveness as well as continuing strength in petrochemical feedstock demand.

Asphalt and road oil deliveries are thought to be strong for this time of year, having declined by less than the seasonal average from previous months. Levels of road building and maintenance are reportedly continuing to be robust as a result of appropriations previously delayed in the summer. As a result, cold weather is not believed to have hampered these programs during the month. Refinery gas production, however, is reported to be slightly lower than last month as a result of seasonal declines in motor gasoline production.

SUPPLY [1/]

Production

OFFSHORE RECOVERS, BUT DOMESTIC OUTPUT STILL DOWN. Despite a recovery in offshore production from September, when platforms in the Gulf had been evacuated for several days due to the threat of hurricanes, October's domestic crude oil production still fell 330 thousand B/D or 3.9 percent from last October. Alaskan production, accounting for a full 25 percent of the total, rose slightly from a year ago, while production in the lower 48 declined by over 350 thousand B/D or 5.6 percent.

The decline in drilling activity over the past three years has not only contributed to production's decline, but has also eroded the upstream sector's capacity to expand drilling activity quickly. With the number of available drilling rigs falling nearly 40 percent since 1985, this capacity would likely take time and major expenditures to restore. Upstream employment, too, has declined by nearly 30 percent, and indications are that workers who have moved on to other geographic areas and industries are a labor force regained only with difficulty.

Imports

NEW RECENT-YEAR RECORD SET FOR IMPORTS IN OCTOBER. Imports reached more than 7.6 million B/D in October, the highest monthly level since early 1980, exceeding the 7.5 million B/D, recent-year record set a year ago July.

Product imports were especially strong, with increases for most major products raising the month's volume to the highest October level since 1974. The more than 400 thousand B/D increase in product imports accounted for two thirds of October's 8.7 percent rise in total imports.

Imports of gasoline and components, which had already set a record summer average of close to 520 thousand B/D, reached more than 540 thousand B/D in October, up about 90 thousand B/D from a year ago. Distillate imports were also strong, rising by 113 thousand B/D to 350 thousand B/D, while residual fuel oil imports were up about 180 thousand B/D from a year ago.

Refinery Operations

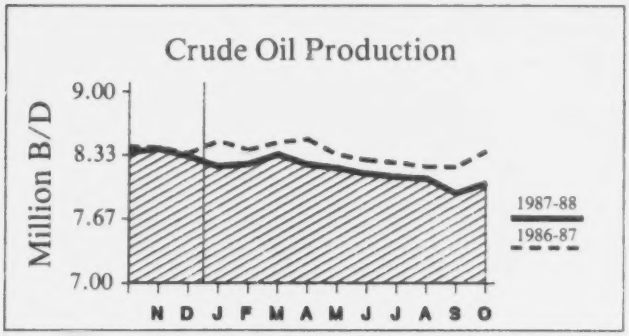
INPUT RISES, GASOLINE OUTPUT UP OVER 4 PERCENT. In line with usual seasonal patterns, October refinery utilization declined from the previous months' levels to 83.1 percent—but remained about half a point higher than a year ago. Though this is one of the lower utilization rates of the year (the lowest was 81.1 percent) it exceeds the highest monthly utilization rate experienced only three years ago. Since 1985, when the highest rate was 81.2 percent, product deliveries a full 1.4 million B/D higher have so far been nearly matched by an increase in refinery input; increases in product imports have recently also come into play in meeting growing supply needs.

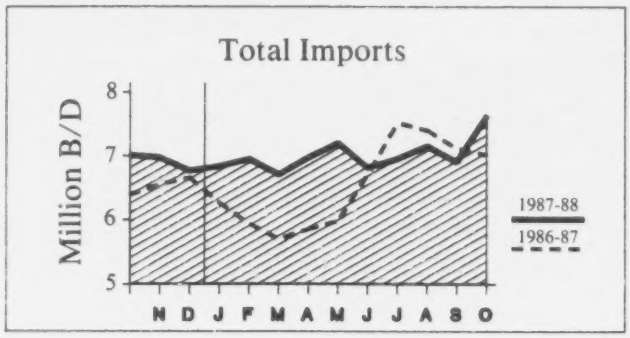
For October, input to distillation units was up 2.6 percent from a year ago, though strong emphasis on gasoline production for this time of year brought about a rise in output of this product of over 4 percent. Distillate production was up 1.7 percent while residual fuel oil output declined slightly.

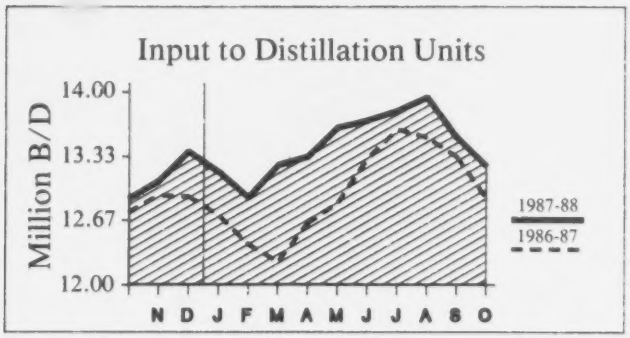
Inventories

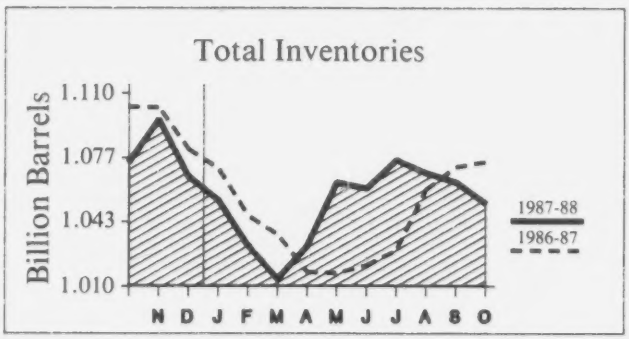
STOCKS FALL DESPITE OCTOBER'S HIGH IMPORTS. October's high imports were not enough to counterbalance the large increase in deliveries for the month, and total stocks fell 11 million barrels. This contrasts with a normal seasonal build of about 5 million barrels. Crude stocks, after having reached in September the lowest level in more than a year, rose by over 12 million barrels. This put crude oil inventories back within the range they had experienced prior to the buildup in late 1987 and early this year.

Though, by conventional wisdom, distillate inventories should be rising in October, in fact, this is the third October in a row in which stocks of this product have either held steady or declined; but, in recent years, refinery production and distillate stocks have typically risen in November and December once refinery turnarounds have been completed. The diminished role of inventories in winter distillate supply was illustrated last season, when only about 6 percent of deliveries were supplied from inventory over the October-March period. This October's month-end distillate stocks, though declining slightly from the end of September, were still higher than a year ago by 7 million barrels. Gasoline stocks declined 7 million barrels during October, in line with normal patterns for the month.









1/ Total supply, i.e., production plus imports adjusted for net stock change is equal to total products supplied from primary storage. Total products supplied from primary storage less exports is equal to total domestic products supplied. Information contained in this report is derived from information published in the API Weekly Bulletin and is based on historical analysis of the industry. All data reflect the most current information available to the API and include all previously published revisions.

2/ Includes lease condensate.

3/ API data do not include crude oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR (according to the U.S. Department of Energy, the SPR held approximately 556 million barrels as of October 31, 1988).

ESTIMATED UNITED STATES PETROLEUM BALANCE

(Daily Average in Thousands of 42 Gallon Barrels)

Products Supplied/Supply From Primary Storage	OCTOBER			YEAR-TO-DATE		
	1988[1]	1987[2]	% Change	1988[3R]	1987[2]	% Change
Products Supplied:						
Total motor gasoline	7,596	7,305	4.0	7,331	7,206	1.7
Finished leaded motor gasoline*	1,262	1,670	(24.4)	1,368	1,774	(22.9)
Finished unleaded motor gasoline*	6,334	5,635	12.4	5,963	5,432	9.8
Naphtha-jet	218	203	7.4	211	206	2.4
Kerosine-jet	1,230	1,264	(2.7)	1,220	1,174	3.9
Distillate fuel oil	3,163	3,151	0.4	3,051	2,946	3.6
Residual fuel oil	1,373	1,069	28.4	1,291	1,253	3.0
All other oils[4]	4,459	4,253	4.8	4,119	4,067	1.3
Reclassified[5]	- 172	- 304	(43.4)	- 164	- 234	(29.9)
Total domestic products supplied	17,867	16,941	5.5	17,059	16,618	2.7
Exports	824	646	27.6	839	736	14.0
Total products supplied	18,691	17,587	6.3	17,898	17,354	3.1
Supply:						
Domestic production:						
Crude oil[6]	8,034	8,364	(3.9)	8,142	8,347	(2.5)
Natural gas liquids	1,615	1,602	0.8	1,609	1,589	1.3
Other supply[7]	1,063	691	53.8	1,088	844	28.9
Total domestic supply	10,712	10,657	0.5	10,839	10,780	0.5
Imports:						
Crude oil, total	5,288 10/	5,085 10/	4.0	4,946 10/	4,573 10/	8.2
Canadian	686	638	7.5	683	614	11.2
Other	4,602	4,447	3.5	4,263	3,959	7.7
Products, total	2,336	1,926	21.3	2,066	1,980	4.3
Residual fuel oil	593	414	43.2	551	556	(0.9)
Other	1,743	1,512	15.3	1,515	1,424	6.4
Total imports	7,624	7,011	8.7	7,012	6,553	7.0
Total supply	18,336	17,668	3.8	17,851	17,333	3.0
Stock change, all oils	- 355	+ 81	XXXX	- 47	- 21	XXXX
Refinery Operations						
Input to crude oil distillation units	13,236	12,896	2.6	13,452	12,957	3.8
Operable capacity	15,922	15,592	2.1	15,911	15,588	2.1
Refinery utilization (%)[8]	83.1%	82.7%	0.5	84.5%	83.1%	1.7
Crude oil runs	13,088	12,733	2.8	13,291	12,805	3.8

Stocks (millions bbls.)	1988		1987[2]	% Change from ...	
	Oct. 31[9]	Sep. 30[9]	Oct. 31	Previous Month	Year Ago
Crude oil 10/	336.7	324.2r/	355.9	3.9	(5.4)
Unfinished oils	109.4	108.2	104.9	1.1	4.3
Total motor gasoline**	214.0	221.4r/	218.0	(3.3)	(1.8)
Finished leaded motor gasoline*	38.2	41.5	51.6	(8.0)	(26.0)
Finished unleaded motor gasoline*	139.0	141.4r/	130.2	(1.7)	6.8
Naphtha-jet	6.4	6.6	7.1	(3.0)	(9.9)
Kerosine-jet	41.2	41.6r/	42.7	(1.0)	(3.5)
Distillate fuel oil	128.4	129.9	121.0	(1.2)	6.1
Residual fuel oil	40.6	44.3	45.6	(8.4)	(11.0)
All other oils	176.1	187.6r/	179.1	(6.1)	(1.7)
Total all oils	1,052.8	1,063.8r/	1,074.3	(1.0)	(2.0)

1/ Based on API estimated data converted to a monthly basis.
2/ Source: U.S. Department of Energy.
3/ Source: January-August, U.S. Department of Energy, September-October, API.
4/ Includes crude losses.
5/ Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from total domestic products supplied.
6/ Includes lease condensate.
7/ Includes Unaccounted-for crude oil, Refinery input of other hydrocarbons, and Processing gain.
8/ Represents "Input to crude oil distillation units" as a percent of "Operable capacity."
9/ Derived by interpolating API weekly stocks data.
10/ Data do not include oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR.
R/ Revised.
* Included in motor gasoline.
** Includes finished leaded, finished unleaded, and motor gasoline blending components stocks.